



A description of
**ORDNANCE
SURVEY**
**MEDIUM SCALE
MAPS**

*Published by the Director General
of the Ordnance Survey,
Chessington, Surrey
1949*

Reprinted with corrections 1951

Price - Two Shillings Net.



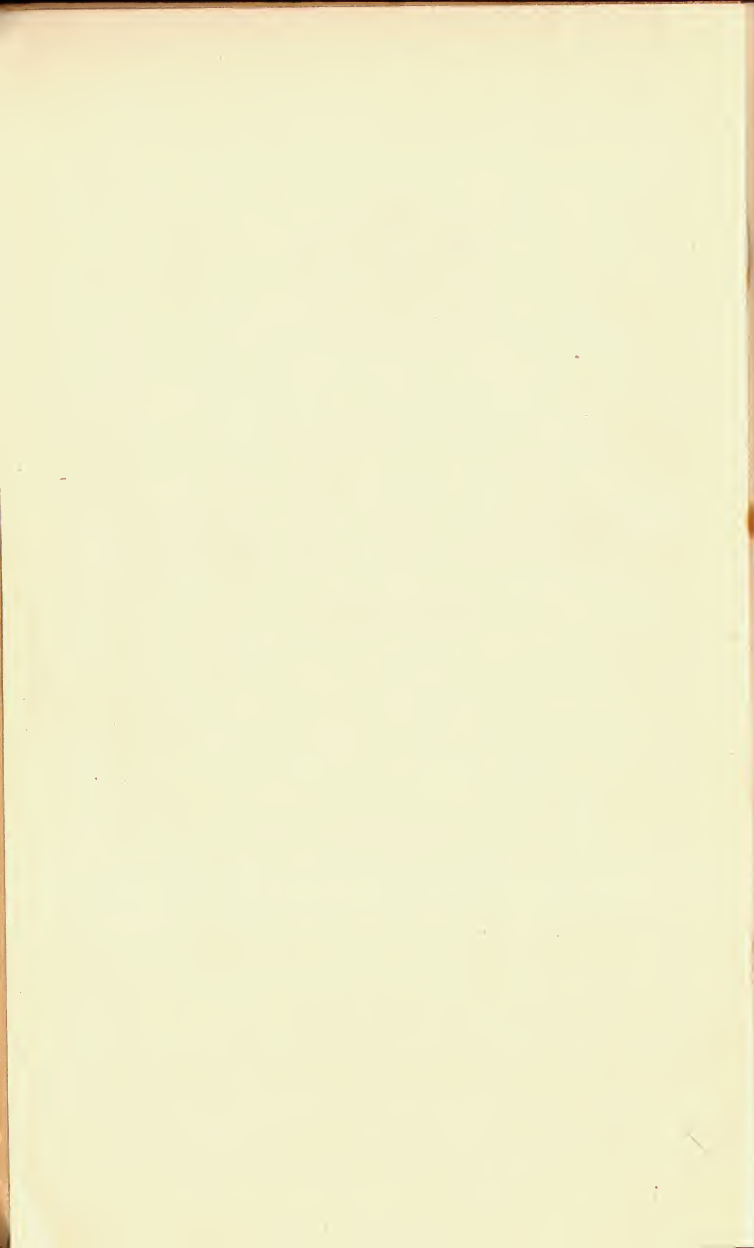


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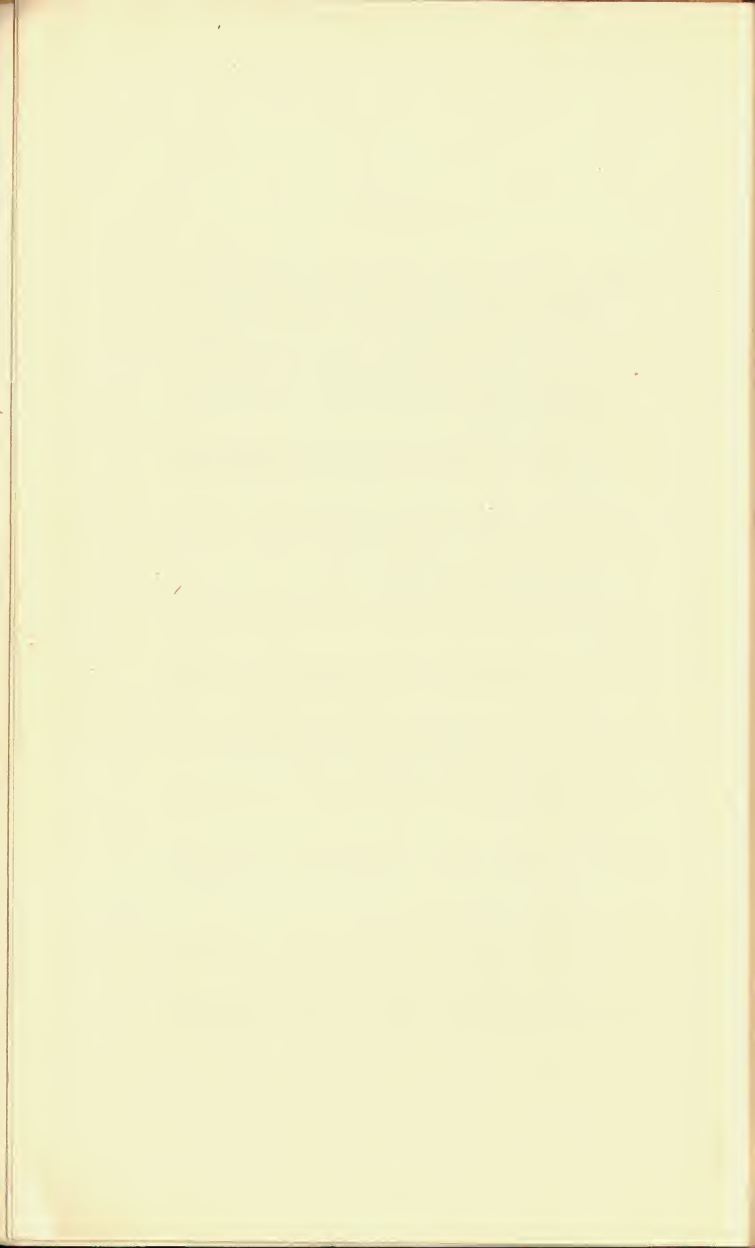
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INTRODUCTION

(1) THE CLASSIFICATION OF MAPS BY SCALES.

For convenience in production the maps published by the Ordnance Survey are classified as:—

- (a) Small Scale,
- (b) Medium Scale, and
- (c) Large Scale.

The Ordnance Survey monthly publication reports deal with each category separately and there is a descriptive pamphlet for each, of which this is one. The following list shows the scales of Ordnance Survey maps collected under each heading:—

(a) SMALL SCALE.

- (i) $1/1\frac{1}{4}$ M. The scale for a series of one-sheet "atlas" maps to illustrate the life, work, wealth and physical conditions of Great Britain, under compilation by the Ministry of Town and Country Planning, of which only the Outline Base Map has been published.
- (ii) 1/M. A two-sheet map of Great Britain in the style of the International Map of the world and with the National Grid incorporated; also certain maps illustrating historical periods.
- (iii) TEN-MILE. The scale of a map showing the Administrative Areas of Scotland north of the Caledonian Canal.
- (iv) $1/625,000$. A two-sheet map series, known as the Planning Series, similar to the $1/1\frac{1}{4}$ M. map described above; many of the maps are already published.
- (v) $\frac{1}{4}$ -INCH. The Fourth Edition with the National Grid; also Civil Parish index diagrams by counties, and the Administrative Areas of Scotland south of the Caledonian Canal.
- (vi) $\frac{1}{2}$ -INCH. A new edition, on uniform sheet lines carefully arranged to cover important "districts," is in course of preparation. It will incorporate the National Grid. This is also the scale for County Diagrams showing Administrative and Parliamentary Boundaries in England and Wales.
- (vii) ONE-INCH. England and Wales—The New Popular, Sixth Edition, on uniform sheet lines and incorporating the National Grid.

Scotland—The Popular Edition sheets brought up to date, and with the National Grid.

As a new full small scale revision covers Great Britain the One-inch Map is being re-drawn sheet by sheet on Sixth Edition sheet lines. It will be known as the Seventh Edition of the One-inch Map.

(viii) 2 INCHES TO 1 MILE. The Isles of Scilly, and Jersey.

(ix) 3 INCHES TO 1 MILE. Guernsey.

(b) MEDIUM SCALE (Described in this pamphlet).

(i) 2½-INCH (1/25,000). The Provisional Edition on 10 kilometre square sheets based on the National Grid.

(ii) 6-INCH. On county sheet lines, the Provisional Edition of which has superimposed on it the National Grid. This series is due to be superseded by sheets covering 5 kilometres square and quartering each 2½-inch sheet. Bromide reproductions of air photo mosaics on identical 5 km. sheet lines and approximately to scale cover parts of the country.

(c) LARGE SCALE.

(i) 25-INCH (1/2,500). Plans on county sheet lines, a series due to be superseded by sheets covering 1 kilometre squares and based on the National Grid.

(ii) 1/1,250. Certain 25-inch Plans, now out-of-date, were enlarged to this scale. Built-up areas are now being surveyed at 1/1,250; the published plans cover 500 metres square and quarter the new 25-inch Plans. Bromide reproductions of air photo mosaics on identical 500 m. square sheet lines and approximately to scale cover a few towns.

(iii) 1/1,056 (60" TO 1 MILE). Of London: obsolescent.

(iv) TOWN PLANS at miscellaneous scales, all obsolescent.

(2) THE HISTORICAL BACKGROUND.

The Ordnance Survey was formed in 1791 in order to make a map of Great Britain at the scale of one inch to one mile, principally for defence purposes. Almost simultaneously Parliament directed that a trigonometrical survey of England and Wales should be undertaken, and, since the task was a military one, entrusted it to the Board of Ordnance, hence the title "Ordnance Survey."

Ireland was the first part of the United Kingdom to be surveyed at the six-inch scale. In spite of being connected with the then current policy of land valuation, and thus civilian in character, the task was given to the Ordnance Survey to perform because there was no other organised body technically qualified. The usefulness of the scale became apparent soon after the work began in 1825. Eventually there grew such public demand that authority was granted

in 1840 for the survey of Scotland and the six northern counties of England at the six-inch scale, which area had by then not been covered by the one-inch survey.

The succeeding period was marked by controversy concerning the best scale for the national survey. There was indeed a temporary foreclosure on the six-inch survey of Scotland in 1852. In 1853 the Treasury issued a circular to a number of interested persons, and a committee was set up to consider the replies. The result was that after 1855, by when the six-inch survey of Lancashire, Yorkshire, Edinburgh, Fife, Haddington, Kinross, Kirkcudbright and the Isle of Lewis was finished, the six-inch map has, except for uncultivated tracts such as the Scottish Highlands, been derived by reduction and adaptation from the 25-inch scale, the scale that was then introduced to be the basic scale for all agricultural and urban areas.

In 1870 the civil work of the Department having for long preponderated over the military, the control of the Survey was transferred from the War Office to the Office of Works, and later to the Board of Agriculture, and it remains under the aegis of the equivalent Ministry to this day.

The routine revision of the National Plans was badly interrupted by the Great War of 1914-18. Many of the staff served with the Forces and the work of those that remained was devoted to the production of maps for war. And then with the resumption of peace came the need to retrench, and the "Geddes Axe," which pruned the Department severely. Thus it was that the big inter-war development of new housing estates and roads found the Ordnance Survey unable to keep pace with the recording of them on the map, until eventually in 1935 administrative efficiency was so impaired by maps remaining unrevised that a Departmental Committee, under the chairmanship of the Rt. Hon. the Viscount Davidson, was set up to investigate the circumstances and offer remedies. Certain details of the final report of the Committee issued in 1938 will be briefly discussed in the later sections of this pamphlet. It suffices here to say that the implementing of the recommendations of the report were almost at once interrupted by the World War of 1939-45, when once again maps for war became the principal occupation of the Department, and only recently has it emerged from the transitional stage.

(3) THE IMPORTANCE OF THE SIX-INCH MAP.

Contoured six-inch maps are almost indispensable for engineering projects, such as rail and road alignments, water and power supplies, and drainage, and for town and country planning. Town Planning schemes have had, in fact, by law to be exhibited on six-inch maps. Indeed the six-inch map has been acclaimed and adopted for wide varieties of usage.

PART I.

THE PRE-DAVIDSON COMMITTEE SIX-INCH MAP.

(4) COVERAGE AND PRECISION.

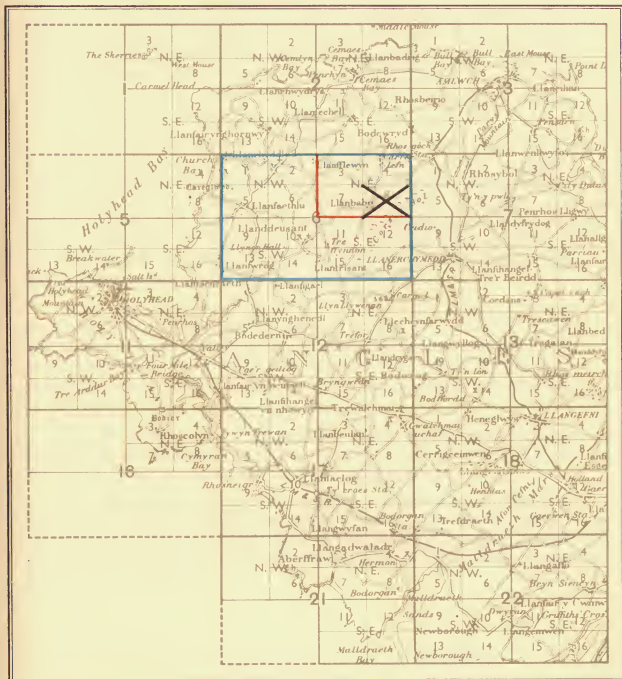
The Six-inch map is the largest scale of map covering the whole of Great Britain. Six inches to one mile is the precise scale of the map, unlike the so-called "twenty-five-inch plan" where the true scale is $1/2,500$ or 25.344 inches to one mile. All the ground features represented on it are correctly to scale, except within built-up areas where street widths have had to be exaggerated in some instances to admit the street names. This street widening is the only distortion which compels the use of the term "map" for it instead of "plan".

(5) THE TRIANGULATION BASIS AND SHEET ARRANGEMENT.

The Primary Triangulation of Great Britain which forms, as it were, the backbone to any map of the country was observed and computed on a country wide basis, but for the early detail surveys supplying the topography for map production the country was broken down into a series of counties, and county groups, treated independently.

Whereas there is now cause to deplore the splitting of the country into these small components, we must allow that our compatriots of a century ago had less opportunity than we to study the implications of map projections, and that the county unit was then more significant than it later became under the influence of quick and abundant communications. The forty two original standard meridians upon which these local surveys were made enabled the control points fixed by the lower order triangulation to be co-ordinated on a series of Cassini projections without objectionable distortion at the scale of the map. Why the Cassini projection was selected is not recorded. Perhaps it was for its theoretical simplicity. In any case the more ideal projection now adopted was at that time unknown to the Department. The disadvantage of the Cassini projection is the one-directional (north-south) distortion which increases with the distance east and west of the central meridian. A distortion confined to one direction means in particular that map shapes and ground shapes differ. At small scales the distortion over the whole country on one Cassini projection is negligible, but, at large scales, to exceed county and county group areas would introduce distortion to an intolerable degree.

Plate I. illustrates the manner of indexing map sheets on a typical county system. Six-inch "full" sheets, in size $36" \times 24"$ *i.e.* covering an area six miles by four, are numbered consecutively within each county. Where more than one county appears on a sheet, that sheet is shown in the index of each county concerned and bears the several sheet numbers appropriate to it. A full sheet contains four six-inch "quarter" sheets, each denoted by the full sheet number



Part of the 6-Inch and 25-Inch Index Diagram for Anglesey,
to illustrate the method of Sheet Numbering for the County Series.
(Scale: 1 Inch to 4 Miles)

In Blue are indicated the Sheet Lines of Anglesey (6 Inch Full Sheet) VI.
(No longer available in full sheet form: see footnote to Sec. 5)
In Red are indicated the Sheet Lines of Anglesey (6 Inch Quarter Sheet) VI N.E.
The Black X indicates the 25 Inch Plan Anglesey VI 8.



and with the suffix N.W., N.E., S.W. or S.E. as the case may be; and the full six-inch sheet is also sub-divided into sixteen 25-inch plans numbered consecutively beginning at the north west corner. Six-inch quarter sheets thus contain four 25-inch plans each, the N.W. quarter sheet comprising plans 1, 2, 5, and 6; and so on. It is the custom to write six-inch full sheet numbers in Roman figures after the county name, followed by plan numbers in Arabic figures, *e.g.* the plan indicated by a cross on Plate I. is Anglesey VI. 8, and it is contained in the six-inch quarter sheet Anglesey VI. N.E.

Until 1882 the six-inch maps of England and Wales were always engraved in full sheets; thereafter, until 1920, with the exception of a few sheets in Lancashire and Yorkshire, only quarter sheets were issued. In 1920 full sheets were re-introduced, but their publication ceased again in 1925 as a result of representations from many users. The history of the sheet sizes for the Scottish six-inch map is similar, except that some of the Highland districts still continue to be published in full sheets.*

Index diagrams for England and Wales at the $\frac{1}{4}$ -inch scale are published county by county showing in black the incidence of the 6-inch and 25-inch sheet lines and the civil parish boundaries. The black information is printed over a grey base which shows topographical detail. The indexes for England and Wales are priced at 2s. 0d. each.

For Scotland similar indexes are issued except that the grey base showing topographical detail is omitted and the price for the Scottish Indexes is 2s. 0d. per copy for each county.

The uncoloured administrative maps of Scotland published in four sheets are also valuable as index diagrams for the 6-inch and 25-inch plans. Sheets 1, 2 and 3 are published on the $\frac{1}{4}$ -inch scale, and sheet 4 (north of the Caledonian Canal) on the 10-mile scale. Price 2s. 6d. each sheet.

(6) ALTITUDES.

(a) THE LIVERPOOL AND NEWLYN TIDAL STATIONS.

Altitudes shown on the older plans of Great Britain are related to an assumed mean sea level at Liverpool based on a fortnight's observations there in 1844. In 1912 there began in the field the new geodetic levelling based on the Newlyn datum, a switch-over which has caused inconvenience to, and complaints from, map users. The principal reason for re-levelling was the knowledge that, due to the imperfect levelling instruments originally employed, and to methods of revision later found to be unreliable, there grew a cumulative error, complicated by local errors, in the old values. Re-levelling was imperative because the errors were unsystematic and no empirical method of applying a correction could be devised.

* Full sheets cover all London, Isle of Man, Caithness, Inner Hebrides, Isle of Lewis, Isle of Skye, Roxburgh, Shetland Islands, Sutherland.

Full sheets are available for parts of Berks, Brecon, Bucks, Carmarthen, Derby, Durham, Essex, Glamorgan, Gloucester, Hereford, Herts, Leicester, Middlesex, Monmouth, Northumberland, Oxford, Staffs, Warwick, Wilts, Worcester, Yorks, Aberdeen & Banff, Argyll, Dunbarton, Forfar, Linlithgow, Orkney, Islands Perth, Ross & Cromarty, Stirling.

The Liverpool datum, besides being based on slight and hasty observations, was sited among the unsatisfactory conditions of a river estuary, so that once relevening was determined upon the decision to relate it to tidal observations on the open sea followed easily, and the Newlyn site was chosen. (There is incidentally another tidal observatory at Dunbar in Scotland, but observations recorded there are for scientific comparisons only, and they have not been used to establish the datum.)

Although a systematic difference between old and new levels cannot be given with precision, yet it is possible accurately enough for most practical purposes, to give the difference to 0.1 foot over the limited area of a six-inch quarter sheet, and this difference has been given in the margins of six-inch maps prepared since April, 1929.

(b) LEVELS AND BENCH MARKS.

Surface levels are shown in feet along the roads on six-inch maps thus:- “.97.” Levels which are shown thus:- “B.M. 574.35” refer to “Bench Marks” cut on buildings, walls, etc. On six-inch maps bench mark levels are given to one decimal of a foot on those prepared before April, 1929, and to two decimals of a foot on later ones. The levels given for islands remote from the mainland refer to locally determined datums. (For Bench Mark lists, see Part III., section 24).

(c) CONTOURS.

Contour lines which have been instrumentally determined are generally drawn at 50 feet, 100 feet, and thence at intervals of 100 feet up to 1,000 feet above sea level. In the six northern counties of England and in the southern counties of Scotland contours were instrumentally determined to much greater heights, and intermediate sketched contours are shown at 25 feet intervals.

No contours appear on the six-inch maps of certain of the northern counties of Scotland.

(7) BOUNDARIES.

The boundaries shown on the six-inch map are, in the main, those which are visible to the eye on the surface of the ground. In country areas all the principal enclosure boundaries are shown correctly in position, but in towns some are omitted for clearness. No attention is paid to property boundaries whatsoever, whether they do, or do not, coincide with enclosure boundaries. This is because property boundaries legally defined to be *e.g.* “10 feet from root of hedge” cannot be delineated without confusing the legal boundary with the physical, and because the investigation of deeds would involve unwarrantable time and expense. Administrative boundaries (county, borough, district and parish), Parliamentary Division and Catchment Area boundaries are, however, shown in their correct positions, whether or not they lie along the visible boundaries.

The conventional signs for Administrative, etc., boundaries are depicted in Plate II.

CONVENTIONAL SIGNS AND WRITING

Used on the Six Inch Maps of the
ORDNANCE SURVEY

BOUNDARIES

Counties (Geographical).....	Parliamentary Boroughs.....	Parly. Boro. Bdy.
County & Civil Ph.....	Divns of Parly. Boroughs.....	Div. of Parly. Boro. Bdy.
Administrative County & Civil Parish.....	Municipal Boroughs.....	Munl. Boro. Bdy.
County Boroughs (England).....	Urban Districts.....	U.D. Bdy.
County Boroughs (Scotland).....	Police Burghs (Scotland).....	Burgh Bdy.
Parliamentary County Divisions.....	Rural Districts.....	R.D. Bdy.
Poor Law Unions (Obsolete since 1930).....	Civil Parishes.....	
Catchment Areas.....	C.A. Bdy.	

Note: Where any Boundary other than County or Administrative County is coincident with Civil Parish Boundary, the Symbol for the latter is shown, other Areas being denoted by description along the Boundary.

ALTITUDES (in Feet)

The Altitudes are above the mean level of the Sea at Liverpool or Newlyn (as stated). The Contour altitudes are written thus... 200

Altitudes along roads and to Trig! Stations obtained by Spirit Levelling, are written thus 300., the dot showing the spot at which the altitude is taken.

Altitudes with the letters B.M. marked against them, refer to marks made on Buildings, Walls, Milestones, &c.

The Latitudes are given on the margin to every 30 seconds, & the Longitudes to every minute.







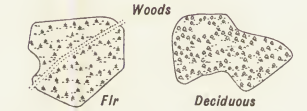
WRITING






<i>County Boroughs (England)</i>	}	C	Parish Churches & Villages
<i>County Burghs (Scotland)</i>			<i>Other Villages</i>
<i>Parliamentary Boroughs</i>	P	PARKS & DEMESNES	
<i>Divisions of Parly. Boroughs</i>	D	<i>Gentlemen's Seats</i>	
<i>Municipal Boroughs</i>	M	<i>Manufactories, Mines, Farms, Locks</i>	
<i>Urban Districts</i>	}	U	Local Authority Establishments
<i>Police Burghs (Scotland)</i>			Bridges (On Main Roads), <i>Bridges (Other)</i>
<i>Civil Parishes</i>	P	<i>Isolated Houses</i>	
<i>Towns (Other than the above)</i>	T	BAYS & HARBOURS	
<i>Districts (Close) in Towns & Suburbs</i>	D	NAVIGABLE RIVERS & CANALS	
<i>Districts (Open) in Towns & Suburbs</i>	D	<i>Small Rivers & Brooks</i>	
<i>Antiquities</i> {		* BOGS, MOORS & FORESTS	
<i>Prehistoric (Prior to A.D. 43.)</i>		Woods & Copses	
<i>ROMAN (A.D. 43 to A.D. 420.)</i>		RANGES OF HILLS	
<i>Saxon & Mediæval (A.D. 420 to A.D. 1688.)</i>		Separate parts of Ranges	
		<i>Single Features</i>	

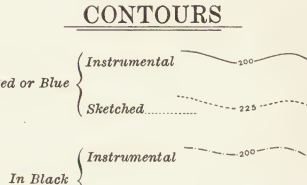





These Examples must vary in size and extent according to the importance of the Districts they refer to.


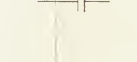




*When several Moors, Bogs, Mosses, &c. are included under one general name, or where they are the component parts of a larger though nameless district of Moor, the name of each subordinate or component part is shown in Roman Print or in Stump Character according to its extent.

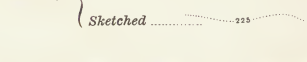

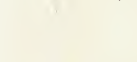

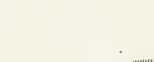


CONVENTIONAL SIGNS








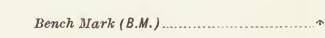













Antiquities, Site of.....

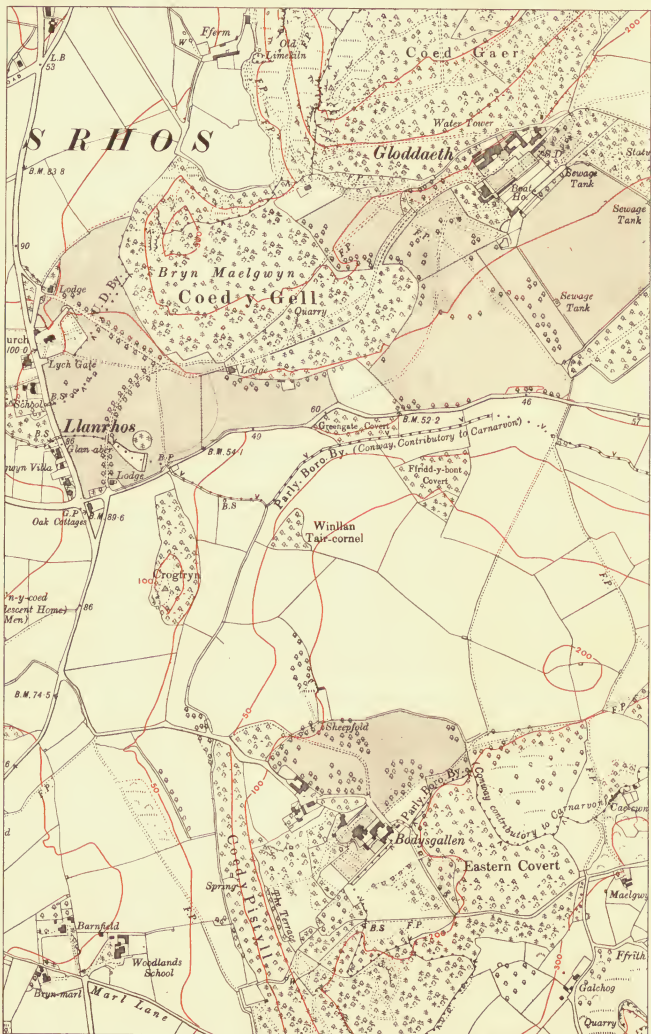
Bench Mark (B.M.).....

Well, Spring, Boundary Post.....





PLATE III



13

A Small Portion of CAERNARVON V.N.W., DENBIGH Part of I & III.

SIX INCHES TO ONE MILE.
Pre-1939, without National Grid.

(8) REVISIONS.

The revision of the six-inch map, being derived from the 25-inch revision, naturally followed it and although the publication date was usually twelve months later than that of the corresponding 25-inch plans, all bore the same revision date.

The revision of the large scale survey was authorised in 1882, and the intention was to undertake periodical revisions every twenty years, completing the country county by county in rotation. As already briefly described in Section 2, this regular revision programme went by the board in 1914, nor has it been possible to resume it since. In 1922, to meet the situation, it was decided to confine the twenty year period of revision to town areas instead of taking complete counties for revision as before, and to postpone the revision of the country districts until the next revision period. By 1928, however, it was apparent that changes within urban areas, and the creation of new ones, had outstripped the capacity of the Department to maintain even the modified programme, and it became necessary to select plans for revision without regard to the county in which a town might be, or the time which had elapsed since the last revision, the sole criterion being the number of changes to be embodied in the plans. The staff was increased to cope with the increasing arrears of work, but the revision situation remained unsatisfactory up to the time the Davidson Committee Report was issued.

(9) FURTHER FEATURES OF THE SIX-INCH MAP.

The depiction of boundaries and altitudes has already been dealt with in Sections 6 and 7. Other features shown on the map are buildings, railways, roads, footpaths and water ways. Public buildings, churches and schools are in solid black; other buildings are hatched. Water is distinguished by thickening the boundary lines denoting the northern and western banks of watercourses, canals, lakes and reservoirs. The direction of a stream is indicated by an arrow.

There are, furthermore, conventional signs to distinguish several classes of wood, orchards, rough pasture, furze, marsh, reeds and osiers; gravel pits, sand pits, quarries and shingle. The manner of showing all these, and other minor features, is given in Plate II., and a specimen of a pre-Davidson Committee six-inch map is at Plate III.

(10) PRICES FOR SIX-INCH MAPS.

Quarter Sheets (18" x 12") flat, 2s. 0d. net.

Full Sheets (36" x 24") flat, 5s. 0d. net.

PART II.

THE POST-DAVIDSON COMMITTEE MEDIUM SCALE MAPS.

(11) THE TRANSVERSE MERCATOR PROJECTION.

It is recorded in the Davidson Committee report that "we are advised that there is no technical difficulty in adopting a single projection extending over the whole of Great Britain. It is clear that it is only by adopting such a course that the inconvenience and extra cost of a number of projection systems can be overcome and the difficulty of changing sheet lines can be permanently eliminated. No arguments were advanced in evidence dissenting from this conclusion."

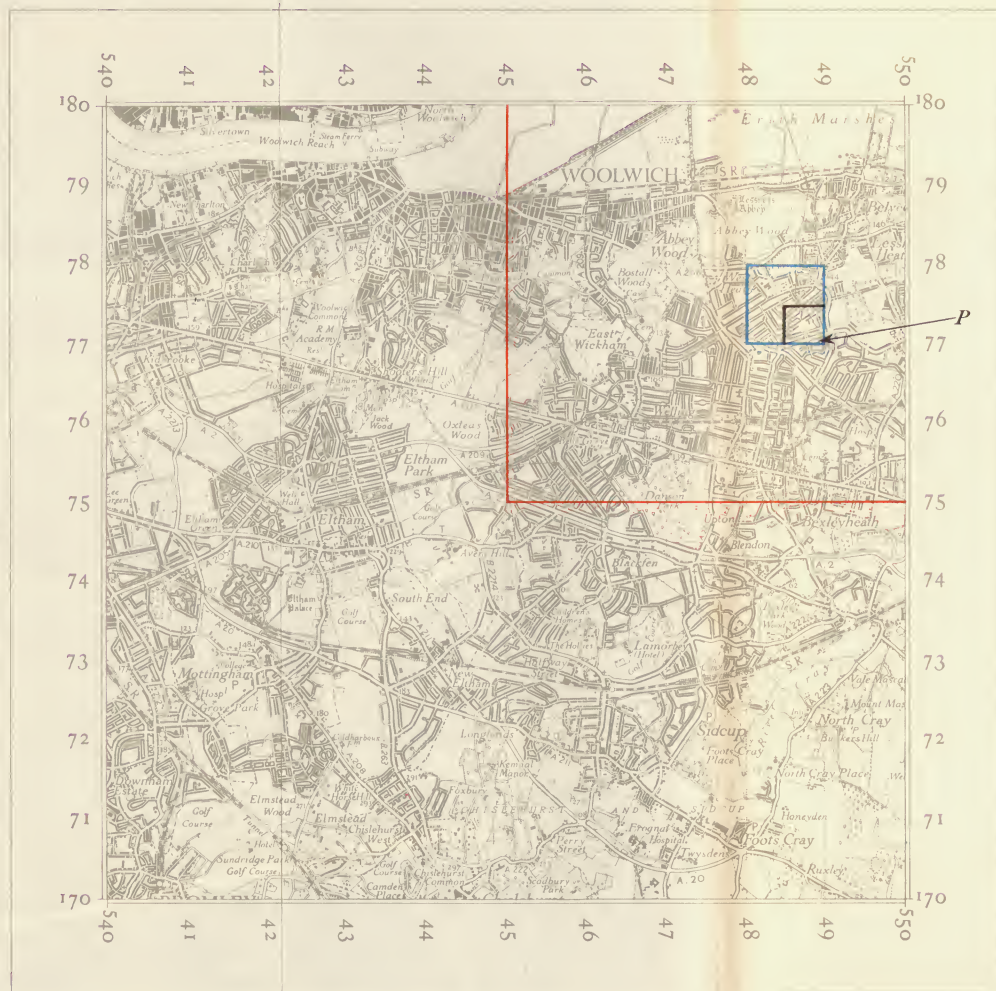
The implementation of this policy is fundamental to the other developments in the current Ordnance Survey programme. Instead of the numerous county and county group origins for a series of limited areas plotted on Cassini projections, one Transverse Mercator Projection based upon an origin at 2° west longitude and 49° north latitude now covers the whole of Great Britain. Scale on the Transverse Mercator projection increases east and west of the central meridian, but the increase, unlike that of the Cassini projection, is the same locally in all directions, so that shapes are not distorted, and horizontal angles, observed over distances limited to what may be termed local surveys, are identical with the same angles directly computed from their rectangular co-ordinates. Furthermore, by the use of a suitable scale factor, it is arranged that the departure from the declared scale, at the largest scale of plan to be published, is nowhere intolerable.

(12) THE NATIONAL GRID AND REFERENCE SYSTEM.

The National Grid and the grid unit adopted both derive directly from recommendations by the Davidson Committee.

The National Grid is a series of squares, superimposed on the map, whose sides are respectively parallel, and at right angles, to the straight line which, in the case of the Transverse Mercator, represents the central meridian on the map. The sides of the squares are multiples of the international metre, and with their assistance every point in Great Britain acquires a unique map reference comprising its rectangular co-ordinates in metres measured positively eastwards and northwards from an arbitrary origin slightly S.W. of the Scilly Isles. A National Grid map reference remains the same whatever the scale of the map or plan in use, although on the larger scales greater precision is obtained from the greater number of digits that are definable, and the uniqueness of each reference is of the greatest value to anyone engaged in the recording of statistics, and for business and public administration.





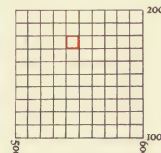
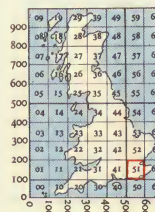
This is Sheet 51/47 of the 2½ Inch (1/25,000) Series as shown at the Scale of One Inch to the Mile on the New Popular Edition, Sheet 171.

In Red are indicated the Sheet Lines of Six Inch Sheet 51/47 N.E.

In Blue are indicated the Sheet Lines of Twenty-five Inch (1/2,500) Sheet 51/4877.

In Black are indicated the Sheet Lines of 1/1,250 Sheet 51/4877 S.E.

All the above-listed Sheets contain the Point "P" whose co-ordinates are:—Eastings 548932 m; Northings 177061 m.



This diagram shows the incidence of the 100 km. National Grid Squares over the face of Great Britain.

This diagram shows the incidence of the 100 km. National Grid Squares over the face of Great Britain.

In Red are indicated the Sheet Lines of the Two-and-a-Half (1/25,000) Sheet 51/47.

In Red is the 51 hundred Km. Grid Square which contains all the Maps and Plans mentioned above.

In Illustration of the Inter-relationship between
ORDNANCE SURVEY MAPS & PLANS
Based on the National Grid.

The National Reference System is being slightly changed in order to bring the civil and military methods of giving grid references into exact accord. In the military system each 100 km. square is designated by two letters. The first letter designates a square 500 km. by 500 km. and the second letter designates the particular 100 km. square lying within the 500 km. square. Each grid square within the 100 km. square is designated by the distances of its south-west corner from the west and south margins respectively of the 100 km. square. Figures are printed in the margins of the maps against the grid lines to enable these distances to be found. The distance eastward must always be given before the distance northward. A point or feature within a grid square can be indicated still more closely by stating its distances from the west and south margins of the 100 km. square (*i.e.* its co-ordinates) with greater precision, and this is usually and most easily achieved by estimating the tenths of a grid square by eye.

It is neither desirable, nor intended, that the change shall be sudden. For a period of some years Ordnance Survey maps and plans will show both the figures which formerly were used to denote the 100 km. square, and the letters which have replaced them. In due course the figures, which must now be regarded as obsolescent, will be omitted. Until that time they will be shown upon all series of maps in parenthesis and immediately below the letters to which they correspond. The former system in which figures are used has been retained in this reprint of this booklet.

More details will be found in "The Projection for Ordnance Survey Maps and Plans and the National Reference System" published by H.M. Stationery Office, 1951.

(13) HOW THE NEW MAP SERIES ARE INTER-RELATED.

The National Grid has enabled a convenient link to be introduced between maps at all scales, so that the possessor of, for instance, a One-inch map has an index diagram from which to discover at once the designation of any larger scale Ordnance Survey map or plan included in its area.

For a quick understanding of the system the brief description which follows should be read in conjunction with Plate IV.

Let us take the National Grid co-ordinates of a point "P" near London; to the nearest metre they are:- eastings 548,932m., northings 177,061m. The map reference of the point "P," excluding all units smaller than a kilometre, is '51/4877.' The initial 51 are the 100 km. digits, 5 the easting and 1 the northing, indicating that "P" lies in the 100 km. grid square whose S.W. corner is 500 km. east, and 100 km. north, of the origin of the grid. Separating the 100 km. digits from the rest of the map reference by a stroke enables anyone to know at a glance to what part of Great Britain it relates.

The new two-and-a-half-inch (1/25,000) and all larger scale sheets are to be square in shape. The two-and-a-half-inch sheets

are 10 km. square and the new 25-inch (1/2,500) sheets are 1 km. square, and each sheet is known by the Full Two and Four-Figure map reference respectively of its S.W. corner. Each new six-inch sheet, having sides 5 km. long, will cover a quarter of a two-and-a-half-inch sheet and each new 50-inch (1/1,250) plan, having sides 500 m. long, will cover a quarter of a 25-inch plan. Each new 6-inch map and 1/1,250 plan will therefore be known by the map reference of its parent two-and-a-half-inch and 25-inch sheet respectively with the appropriate suffix N.E., N.W., S.E. or S.W. We thus establish from its co-ordinates that "P" lies in :-

2½-inch (1/25,000) sheet	51/47.
6-inch (1/10,560) „	51/47 N.E.
25-inch (1/2,500) „	51/4877.
50-inch (1/1,250) „	51/4877 S.E.

It has been said that the one-inch map is an index to all larger scale sheets. This is because it is gridded at 1 km. intervals, *i.e.* at the sheet lines of all twenty-five-inch plans, and because each ten kilometre grid line, the sheet line for two-and-a-half-inch maps, is emphasised. Also be it noted that the 1/625,000 maps gridded at 10 km. intervals make excellent comprehensive index diagrams for the two-and-a-half-inch series.*

(14) THE RE-SURVEY OF GREAT BRITAIN.

The Davidson Committee recommended that, while the re-casting of the 1/2,500 survey on national instead of county sheet lines was in progress, "there should be a general overhaul of the plans in order to remove the discrepancies along county boundaries and to eliminate the errors which have crept into the original survey in the course of its revision."

The 25-inch plans of rural areas are about to be overhauled either on the ground or from air photographs to such a rigorous degree as almost to constitute re-survey, and in built-up areas a re-survey at the scale of 1/1,250, a project recommended by the Committee for further consideration, has already begun.

Work has been in progress on the new primary triangulation of the country for some years, and this is now being broken down by new lower order triangulation and by traverse to form the framework for the detail survey. In some measure the need for the new triangulation arose because of the loss or disturbance of many of the original triangulation and other co-ordinated points. Having regard to their nature,—buried "tiles" in open country, or the prominent features of certain buildings in towns,—and to the manner in which towns have spread into the countryside, the loss and disturbance was not surprising. Steps are being taken on this occasion to render as permanent as possible the principal triangulation points in the country and to provide numerous co-ordinated points within towns to be fixed by traversing. The latter are called Revision Points (R.P. for short) and they consist of the corners of buildings, marks on

* In order to eliminate in coastal areas a number of sheets covering a small portion of land only, some sheets have been extended beyond the normal 10 Km. square. These sheets are designated by the Full Ten-Kilometre Reference of the parent sheet.

walls, or pavements, etc., the later recognition of which is assured as far as possible by making a sketch or by taking a photograph in which the revision point is indicated by an arrow, and in which a sign board is included to give its name, number, etc. These revision points not only make points of departure for the new chain surveys and for later revision surveys, "but it is expected that engineers and local surveyors will come to find them invaluable also, particularly since they are co-ordinated precisely enough for use in surveys at the scale of 1/500 (see Section 25).

R.P.'s are to be shown by a conventional sign correctly positioned on every 1/1,250 and 1/2,500 plan.

As a further precaution for the future, errors from paper distortions are to be eliminated by the use of metal plates at all stages of the field survey and subsequent map production.

Twenty-five-inch plans, six-inch and two-and-a-half-inch maps are to be derived from the basic 1/1,250 survey in that order for town areas, and the two medium scales from the 25-inch survey for country districts, so that publication at all scales for any area will not be simultaneous. Indeed the survey and the map production will inevitably take many years to cover the whole of Great Britain.

(15) CONTINUOUS REVISION.

The Committee's recommendation "that a system of continuous revision should be adopted for the large scale plans as soon as practicable" is being implemented. A party will be detailed to reside in a town and will be charged with the duty of maintaining up to date all documents connected with the plans of the area allotted to it as and when actual changes in ground features are taking place. Revised plans will be published as soon as revision material grows sufficiently to warrant them, or when they are specially demanded for, *e.g.* development purposes. Revised editions of the Medium Scale maps will follow in due course.

(16) THE PROVISIONAL EDITION OF THE SIX-INCH MAP.

It will be obvious from what has been stated above that the new six-inch maps will not cover the country completely for many years to come. For the interim period, and to enable the advantages of unique map references to be enjoyed at this scale as early as possible, a Provisional Edition of the six-inch map is in course of production and is being published at a rate of about fifty quarter sheets a month for wherever revision material avails. It consists of the old county series of quarter sheets with the National Grid at km. intervals superimposed. The grid figures in the margins and Ministry of Transport road numbers are in red, the same colour as the contours, but the grid is in black rendered to some extent unobtrusive by being printed in fine dots. The edition incorporates not only regular revision material, the publication of which was interrupted by the war, but also all the revision that was carried out during the war for A.R.P. and other special purposes. This latter

material is not of the superlative quality associated with the Ordnance Survey; it is reasonably accurate, but details of no importance for the special purpose of the revision are ignored, and much is presented in a generalised form. The areas of the map affected are in most instances immediately recognisable, although the other features of the map, including its price, remain as described in Part I. Furthermore some revision is still being carried out in areas where development is taking place and where the new map is not likely to be available early.

Owing to the confused state of the county series covering London and its environs 42 new sheets in Provisional Edition style but on National Grid sheet lines (see Section 17) are now being prepared. Further Provisional Edition sheets on National Grid sheet lines will appear later as fresh revision material of other parts of Great Britain (as opposed to its re-survey or 'overhaul') becomes available. In particular 86 sheets in Northumberland and Durham are in preparation.

The concern felt by the committee lest the introduction of new six-inch sheet lines should involve the re-writing of numerous memoirs and descriptions which are now illustrated by maps on county sheet lines will be met by retaining the plates of the provisional edition of the six-inch map in an unrevised state, to be "available for printing on demand until such time as the need for these plans no longer arises."

A specimen is at Plate V.

(17) THE SIX-INCH MAP ON NATIONAL GRID SHEET LINES.

As already stated in Section 13, the new six-inch map sheets, which are about to appear, will represent squares of sides five kilometres long, and they will therefore measure 18.64 x 18.64 inches, excluding marginal detail. The specification for the new series has been all but settled. The map will probably be printed in two colours, using black for the detail and red both for the contours, and for the house filling instead of the black hatching used for many years. Otherwise there should be no radical change in style.

A specimen to show the proposed style is at Plate VI.

(18) SIX-INCH AIR-PHOTO MOSAICS.

At the request of certain government departments air-photo mosaics, at approximately 6-inch scale, have been prepared covering some areas where the 6-inch map is out-of-date. The word 'approximately' is used advisedly, because, although the air photographs are rectified in a camera to ensure that certain salient points are correctly co-ordinated with the map, many distortions remain which it is impossible to eliminate. The mosaics do, however, serve a purpose, especially for comparing detail with that on existing maps. As regards the depiction of ground conditions at a particular moment they supplement map information, but they fall short with respect to names, altitudes, ground detail beneath trees or in heavy shadow, and many things including administrative boundaries that a map displays

SURREY. SHEET XIII. N.E.

LON. 0° 9' W



529024 0mE
29
69241.5m.N.

69

LAT. 51° 24'

MITCHAM MUNI. BORO.

68

COMMON

To Croydon
A236

XIV. N.W

30"

A part of Surrey, Sheet XIII N.E.

SIX INCHES TO ONE MILE.

Provisional Edition, with National Grid.

PLATE VI



Part of Sheets 45/16 N.E. & S.E.

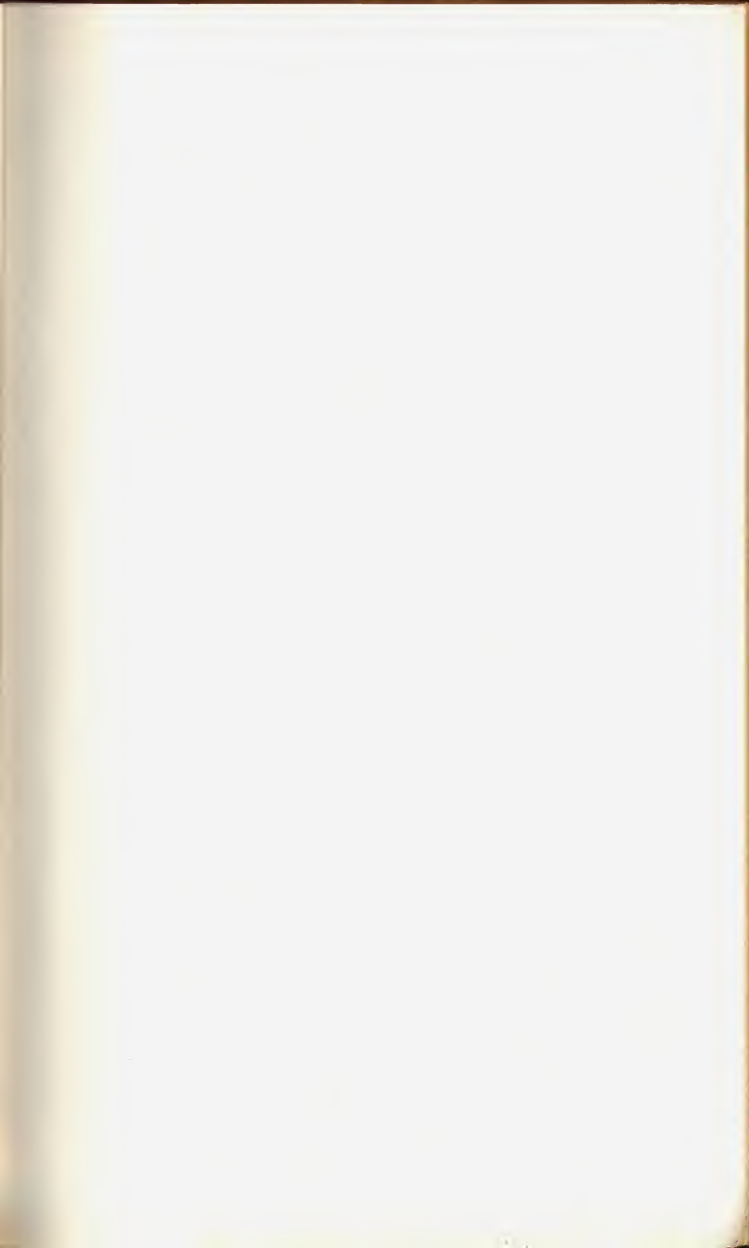
SIX INCHES TO ONE MILE.

Proposed style for new series on National Grid Sheet lines.



THE END OF THE WORLD

THE END OF THE WORLD





A part of Sheet 26/66 S.E.

AIR-PHOTO MOSAIC

AT THE APPROXIMATE SCALE OF SIX INCHES TO ONE MILE

NOTE.—Depicted hereon are housing, open country, roads, railways, a river and a colliery

by symbol and abbreviation. Mosaics are produced on the same sheet lines as the eventual six-inch map of the National Grid Series.

Areas covered by mosaics published and in course of preparation include some of Aberdeen and of parts of the Lowlands of Scotland; an area between Merthyr Tydfil and Cardiff in South Wales; areas covering Birmingham and London. Mosaics have also been produced covering scattered areas in a number of counties. Other areas may be covered later, but it is improbable that mosaics will ever be produced to cover the whole of Great Britain.

A specimen is shown at Plate VII.

The price for a six-inch mosaic is 12s. 8d.

(19) THE TWO-AND-A-HALF-INCH (1/25,000) MAP. PROVISIONAL EDITION.

(a) IN GENERAL.

The Davidson Committee recommended that "a new medium scale of 1/25,000 should be tried out experimentally in certain selected areas, and, if successful, should be extended to cover the whole country in a National Series." The recommendation arose from the view expressed by a number of the witnesses that there was too considerable a gap between the scales of one inch and six inches to one mile. In particular, schools have found the latter too large a scale to give a general picture of the country and the former too small a scale to give sufficient detail. It was also considered that the general public would welcome such a map for walking purposes. The committee might further have mentioned that the new scale would be of use to Planning Authorities particularly in country districts.

The 1/25,000 scale, approximately $2\frac{1}{2}$ inches to the mile, came to be chosen partly because the War Office had already produced some maps at this scale for their own special purposes, and it so happened the War Office series was extended to cover the whole country during the war. They were produced in "quarter-sheets," each covering an area of 10 km. x 15 km., and their sheet lines were based on the War Office Cassini Grid which covered the face of the map at 1 km. intervals. Local authorities and many Departments besides the War Office used them, and they proved of great value in spite of their poor quality which was due to the speed of their original production and to the fact that, being direct unadapted reductions from six inch quarter sheets, many of the finer features and smaller names were rendered nearly illegible. The general approval given to these inferior maps by official users was accepted for the fulfilment of the tentative experiment which had been recommended, and work is in fact already well in hand to cover the country with a properly prepared series at this scale.

It has been mentioned before that the new survey of Great Britain, and following it the production of the new series of plans

and maps, will take many years to complete. But so that there shall be a 1/25,000 map available to the public within reasonable time, production is in hand of a "Provisional Edition," the sheets of which are being published at a rate of about 40 a month. It is called the "Two-and-a-half-inch map" (a close approximation to the actual scale), because an inch/mile relationship is more easily understood by the public at large than a representative fraction.

The term "Provisional" must not be read to imply any denigration of the quality of the map production. On the contrary, admiration for the map is widely expressed, and it is becoming increasingly popular. The word "Provisional" is used to indicate that the edition is to remain effective only until superseded by a regular edition which is to be derived from the re-survey of Great Britain. The Provisional Edition is actually based upon the old six-inch map, the details being adapted where necessary to suit them to the smaller scale, and all available revision material, including that described in section 16 above, is being incorporated. From this it will be understood that, at the time of publication, the map is not completely revised. The amount of revision incorporated since the last revision of the corresponding Six-inch sheet varies from sheet to sheet. The contours in this edition are at 25-foot intervals, the surveyed contours (see Section 6 (*b*) above) with intermediate ones inserted by interpolation. Production was first concentrated upon areas in north-west England and East Anglia, but statutory demands prevented the progressive development over the country that was intended, and production was diverted to groups of sheets here and there covering many of the main towns and their immediate neighbourhoods. The gaps between the groups of sheets are now being filled in.

The conventional signs* employed correspond closely with those which long custom has rendered familiar, but taking full advantage of all that a new scale has to offer has, as might be expected, produced a map in aspect very different from any other map, larger or smaller in scale, produced hitherto by the Department. Its general features are as follows:—the map area of a normal sheet is a square of approximately $15\frac{1}{4}$ inch sides which represents an area 10 km. x 10 km.; the few exceptions to the rule cover coastal areas where one or two kilometres have been added to one side or the other or both sides of the square for convenience and economy in production; it is gridded at 1 km. intervals; scales are incorporated in the marginal device, the inner border being "diced" at 100 metre intervals, and the outer border displaying scales of miles, furlongs, yards and feet, and the borders are designed so that sheets can be joined to form larger maps; the convergence of grid north with true north is given to one second of arc, and is indicated by arrows the full length of the sheet; the magnetic variation from grid north is given to one

* Reference panels for the conventional signs at first appeared in the southern margin of each map sheet, but this practice was stopped in order to save paper. Instead, conventional sign cards—see Section 19 (*f*)—are obtainable on demand.

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INDEX TO THE ORDNANCE SURVEY OF ENGLAND & WALES.

Sheet Lines and 10,000 metres Grid on the Transverse Mercator Projection

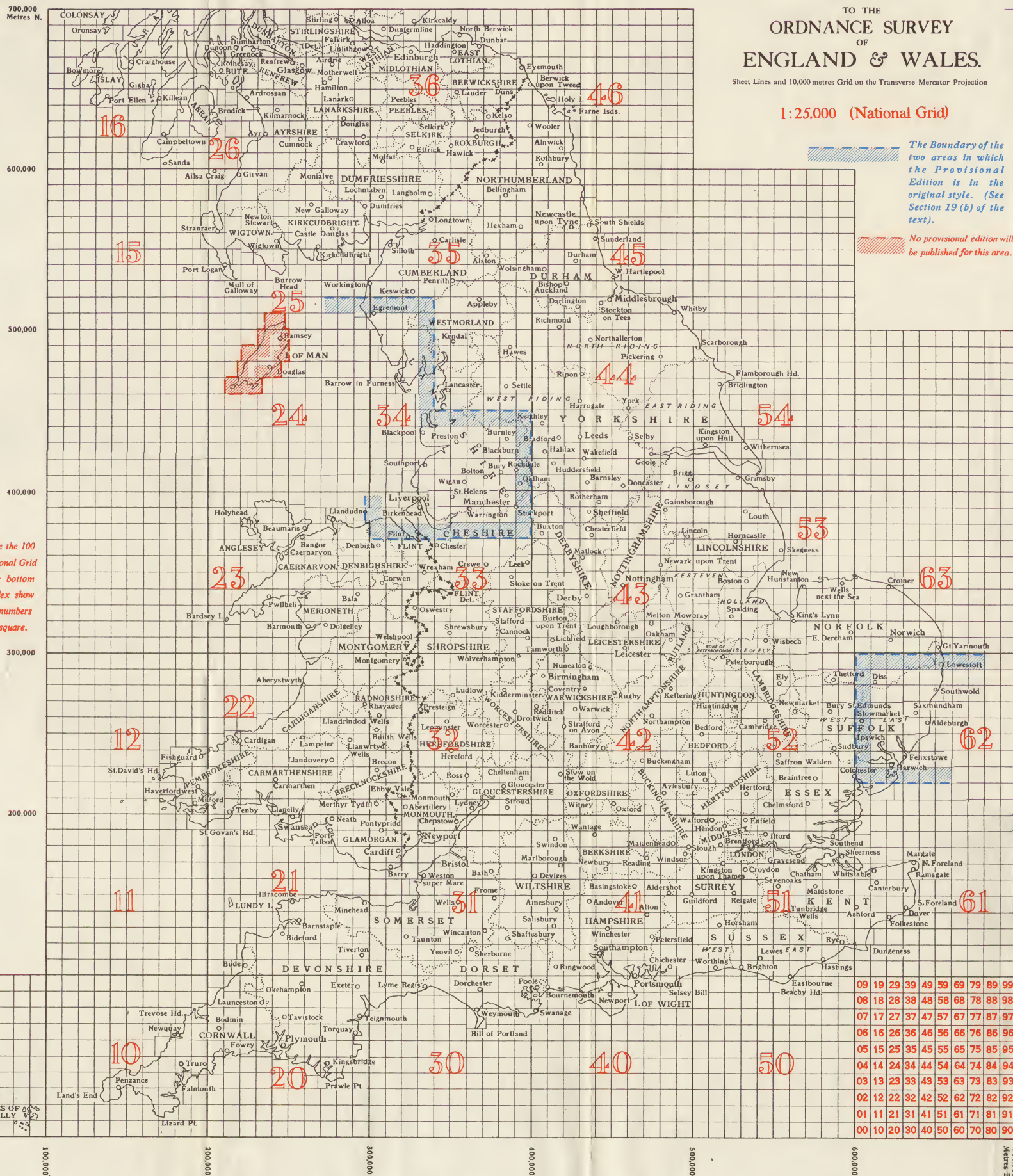
1:25,000 (National Grid)

The Boundary of the two areas in which the Provisional Edition is in the original style. (See Section 19 (b) of the text).

No provisional edition will be published for this area.

NOTE

The open figures in red denote the 100 Kilometre squares of the National Grid. The solid red figures at the bottom right hand corner of the Index show the incidence of the sheet numbers within each 100 Kilometre square.



Scale 1:2,000,000 - 31.56 Miles to One Inch

0 10 20 30 40 50 Miles
0 10 20 30 40 50 60 70 80 90 100000 Metres

Crown Copyright Reserved

Ordnance Survey, 1938

INDEX
TO THE
ORDNANCE SURVEY
OF
SCOTLAND

Sheet Lines and 10,000 metres Grid on the Transverse Mercator Projection

1:25,000 (National Grid)

The boundary of the 'mountain' areas for which only the final edition, i.e. no provisional edition, will be published.

NOTE

The open figures in red denote the 100 Kilometre squares of the National Grid. The solid red figures at the bottom left hand corner of the Index show the incidence of the sheet numbers within each 100 Kilometre square.

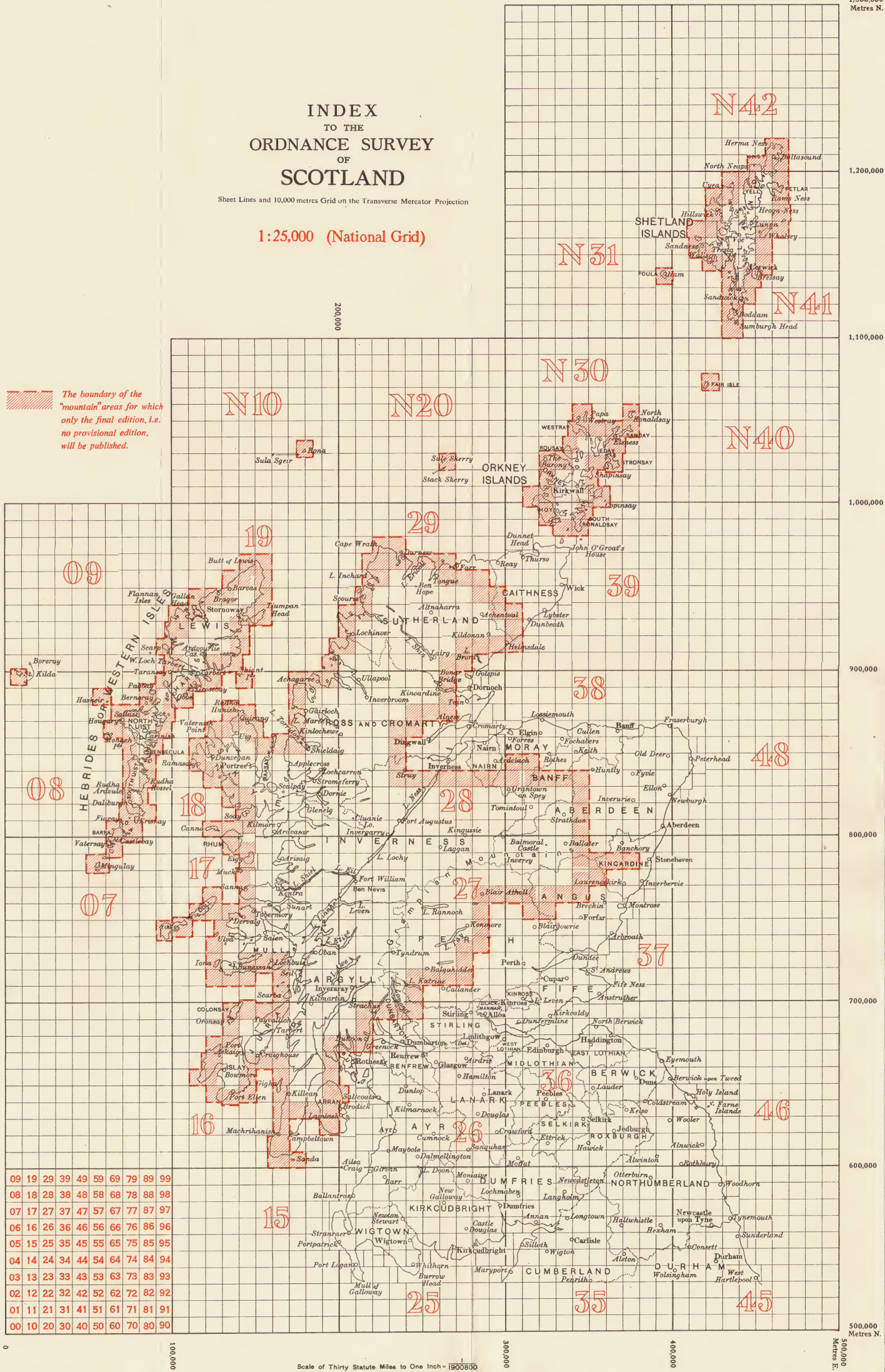




PLATE X

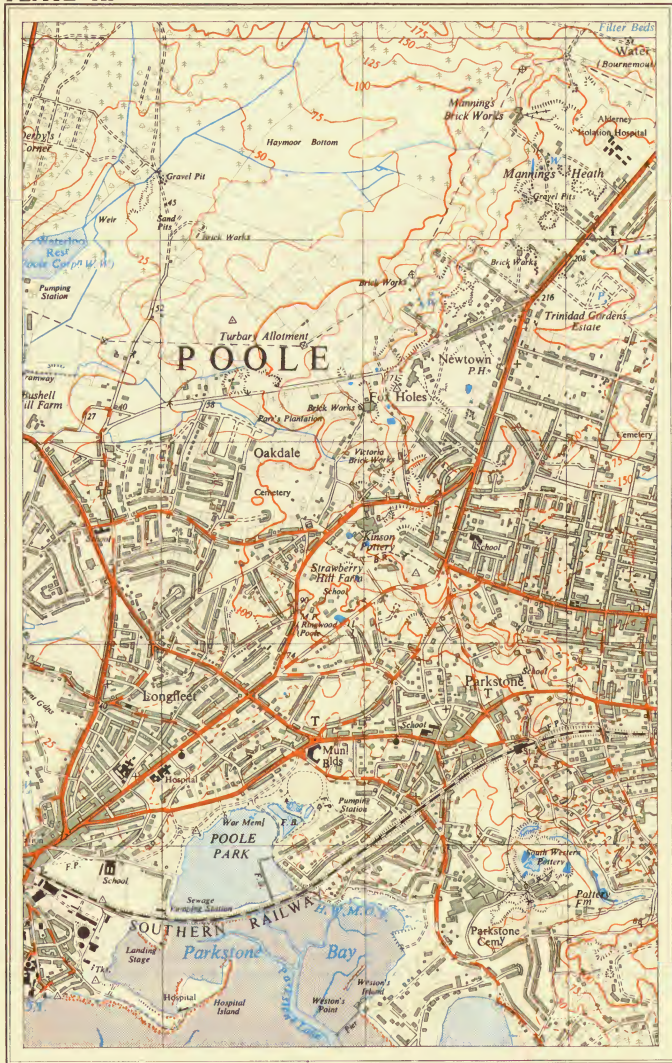


TWO & A HALF INCH (1/25,000) SERIES.

Provisional Coloured Edition

(Original Style).





TWO & A HALF INCH (1/25,000) SERIES.

Provisional Coloured Edition.

(Later Style)

1. The first of the three main branches of the
 2. The second of the three main branches of the
 3. The third of the three main branches of the

4. The fourth of the three main branches of the
 5. The fifth of the three main branches of the
 6. The sixth of the three main branches of the

7. The seventh of the three main branches of the
 8. The eighth of the three main branches of the
 9. The ninth of the three main branches of the

10. The tenth of the three main branches of the
 11. The eleventh of the three main branches of the
 12. The twelfth of the three main branches of the

13. The thirteenth of the three main branches of the
 14. The fourteenth of the three main branches of the
 15. The fifteenth of the three main branches of the

PLATE XII

Youth Hostel.....	Y	Park, Fenced.....	*	Orchard.....	
Antiquity (Site of).....	+†				
Telephone Kiosk.....	T	Wood, Coniferous, Fenced.....	* *	National Trust Area.....	(Sheep Common N.T.)
Glasshouses.....	□ □			Rough Pasture, Heath & Moor.....	
Bench Mark (Not shown in built up areas)	↑	Wood, Deciduous, Unfenced.....			
Pump.....	P			Furze.....	
Spot Height.....	123	Brushwood, Fenced & Unfenced			
Well.....	W ^o				
Boundaries, County or County Borough.....	- - - - -			Marsh.....	
" " " " " with Parish.....	- - - - -				
" " " " " Parish.....	- - - - -			Reeds.....	
					
Contours are at 25 ft. vertical interval, shewn broken in built-up areas. Instrumental contours are at 25 ft. interval to 100 feet, 50 ft. interval to 500 feet, 100 ft. interval to 1,000 feet and 250 ft. thereafter.					
Roads, Ministry of Transport Class I.....	A. 123	Fenced.....	B. 2314	Unfenced.....	
" " " " " II.....		Good, metalled.....		Poor, or unmetalled.....	
Other Roads.....					
Foot Path and Bridle Road.....					
					
Railways, Multiple Track.....					
" Single Track.....					
" Narrow Gauge.....					
Aerial Ropeway.....					
Electricity Transmission Lines (Pylons shown at bends and spaced conventionally).....					
Pipe Line (Oil, Water).....					
Church or Chapel with Tower.....	✙	Church or Chapel with Spire.....	✚	Church or Chapel without either.....	✛
Trigonometrical Station.....	△	Trig. Sta. on Church with Spire.....	⊙	without Spire.....	⊕
Trig. Sta. on Chimney.....	○	Trig. Sta. on Building.....	◻		
Post Offices (In Villages & Rural Areas only) with Telegraph & Telephone.....	P	Other Post Offices.....	P		
Guide Post..... G.P.	Mile Post..... M.P.	Mile Stone..... M.S.	Boundary Stone..... B.S.	Boundary Post..... B.P.	

minute of arc and is similarly indicated; the method of designating map sheets has already been dealt with in Section 13.

The index diagram for England and Wales is at Plate VIII., and for Scotland at Plate IX. The areas bounded by a red border on both these diagrams are those for which only a regular edition of the map, *i.e.* no provisional edition, will be published.

(b) THE COLOURED EDITION.

There are two styles in the Coloured Edition:—

(i) The original style, which is confined to the areas of N.W. England and East Anglia within the boundary shown on the index diagram for England and Wales at Plate VIII., shows in black the principal enclosure boundaries, the outlines of all roads and tracks, railways, buildings (solid black for public buildings and hatched in black for others), woods, brushwood, furze and orchard symbols and administrative and National Trust Area boundaries; in brown, road fillings, for Ministry of Transport Class I. roads solid, for Class II. roads long pecks, and for minor metalled roads short pecks,* contours at 25 feet intervals, sand and shingle; in blue, all water features and their names, including areas of marsh, reeds, and osier beds, and combined with a brown stipple to give a realistic representation of mud.

An extract from sheet 34/40 covering Ormskirk is provided at Plate X.

(ii) The later style, which is destined to cover all Great Britain, apart from mountain areas was, introduced as a result of constructive criticisms of the original style, and, although the original style makes a good map, the later is generally acknowledged to be a big improvement on it. The improvement consists in the introduction of one more colour, a carefully chosen grey, and of a more pleasing fount of type for the lettering. The grey is used in place of black for the following features:—enclosure boundaries, the fillings for non-public buildings (as a grey tint), woods, brushwood, furze and orchard symbols (but the tree symbols in ornamental parks remain in black). The result of this change is to put the less important features into the background and contrarily to display the more important to greater effect, and to give built-up areas a cleaner and more “finished” appearance.

An extract from sheet 40/09 covering Poole is provided at Plate XI., and there is a conventional sign sheet in the later style at Plate XII.

The coloured edition of this series will be available in the paper flat, paper folded and mounted and folded styles. The method of folding enables any part of the map to be used with the minimum of unfolding, and the folded map is put up in an attractive cover in a blue design which incorporates a miniature index diagram to

* Early sheets show pecked brown fillings for Class II. roads only. They are being brought into line with the later convention when they are reprinted.

show the incidence of the map sheet with its neighbours against a skeleton outline of the topography.

(c) THE OUTLINE EDITION.

The Outline Edition is printed in grey, and is produced by combining the black and blue plates in the case of the original style of the Coloured Edition, and the grey, black and blue plates in the case of the later style. The heavier paper of this edition combined with the scale and general format make it ideally suited to the needs of statisticians, field study groups, botanists, archæologists, etc., for the plotting of data.

A specimen from Sheet 40/09 is at Plate XIII.

(d) THE ADMINISTRATIVE AREAS EDITION.

This map consists of the Outline Edition overprinted in red to show for England and Wales the boundaries of Administrative County and County Boroughs in a heavy line; Metropolitan and Municipal Boroughs, Urban and Rural Districts in a medium line; Civil Parishes in a thin line; and the Wards of Boroughs and Urban Districts in a thin pecked line.

Each administrative area is named in red, several styles of type being used to distinguish the various grades of local authority, except that, in the cases of Administrative County Areas identical with Geographical County Areas and of Civil Parishes not identical in area with Boroughs or Urban Districts of similar name, the names in question as they appear in the Outline Edition of the map are merely underlined in red.

For Scotland, the corresponding administrative boundaries are shown similarly delineated, but in a slightly different colour, in order that they may be distinguished from English boundaries at the Border.

Early in 1948 it was decided to stop producing the Administrative Areas Edition for all map sheets containing neither wholly nor in part the Wards of Boroughs and Urban Districts. This restriction, which does not apply to the Outline Edition, may be reconsidered should sufficient demand arise for overall coverage.

There is an extract from sheet 43/49 at Plate XIV.

It should be noted that the publication of the Outline Edition and the Administrative Areas Edition of any sheet follows the publication of the Coloured Edition usually by about two months.

Index diagrams to show what sheets of the three editions are published may be obtained from the Director General, Ordnance Survey Office, Chessington, Surrey.

(e) PRICES FOR TWO-AND-A-HALF-INCH MAPS.

Coloured edition, paper flat,	2s. 6d.
Coloured edition, paper folded,	3s. 6d.
Coloured edition, mounted and folded,	4s. 6d.
Outline edition, paper flat,	2s. 9d.
Administrative Areas Edition, paper flat,	3s. 0d.





Sketch of the [illegible] [illegible] [illegible]



Any two adjacent paper (*i.e.* unmounted) sheets can be supplied joined together at a charge of 1s. 0d. to cover the cost of the trimming and joining, and four such sheets to make a square at a charge for trimming and joining them of 3s. 0d. Joined sheets are not held in stock, but are made up to meet individual orders.

(f) CONVENTIONAL SIGN CARD.

A conventional sign card to explain the symbols and abbreviations used in this map series is now available.

(20) THE TWO-AND-A-HALF-INCH MAP (1/25,000) FIRST REGULAR EDITION.

In its main features the style of the first regular edition of the two-and-a-half-inch map, which is to follow the re-survey, will not greatly differ from that of the Provisional Edition. Contours, it may be said, will all be surveyed either on the ground or from air photographs. But however good a map may be, there is always scope for progressive improvement, especially as regards the detail, and it is intended to make this new map as perfect as possible. Constructive criticisms from users of sheets of the Provisional Edition of the two-and-a-half-inch map are therefore specially invited at this juncture, and they should be addressed to the Director General, Ordnance Survey, Chessington, Surrey.

(21) THE WAR OFFICE 1/25,000 MAP, WITH MILITARY GRID.

Sufficient has been written in Section 19 above in description of the War Office series to indicate that, although it served its purpose admirably for an emergency, it cannot be classed amongst the series of maps upon which the reputation of Great Britain as the best-mapped country in the world is based. Indeed, apart from its general appearance, its illegibility is such that, although it has been made available with the exception of certain sheets for use as a stop-gap, prospective users of 1/25,000 scale maps are strongly urged to buy the new Ordnance Survey sheets when published, or to await their publication. A further strong reason for avoiding the War Office series is that the grid is not the National Grid and there is a great danger of eventual confusion if the military grid, which is obsolescent, should be taken into use for map referencing. Ordnance Survey Agents (see Section 27) will know at all times what Ordnance Survey 1/25,000 sheets are published, and enquiries can at all times be made either through agents or direct to the Ordnance Survey regarding the imminence of others.

Anyone for whose purpose the War Office series is imperative can obtain them only by direct application to the Director General, Ordnance Survey, Chessington, Surrey, giving in each case full details of the area which it is desired to cover. This series will not be reprinted when present stocks are exhausted.

Price, paper flat, 2s. 0d.

PART III.

MISCELLANEOUS ITEMS.

(22) ANTIQUITIES.

Features of archæological interest have appeared on Ordnance Survey maps from the beginning. The tradition is probably traceable to the enthusiasm of General William Roy, who had much to do with the formation of the Ordnance Survey but died before its inception. He, like many Directors General after him, was a fellow of the Royal Society, and this may account for the continuance of the tradition. However this may be, it happened that the surveyors persisted in seeking out the sites of antiquities, although archæology was never in the early days listed amongst the duties of the Department.

Enthusiasm exceeding specialist knowledge gave rise to certain errors in the information recorded on the map, and criticism on this score led to the appointment of a qualified archæologist to the Ordnance Survey in 1920. It was an auspicious moment for such an appointment, because it coincided with the discovery that air photography can reveal many things of archæological interest that are imperceptible from ground level. Much new authentic material has appeared on Ordnance Survey maps and plans since that date, and some earlier material that was of dubious validity has been deleted.

The sites of antiquities are indicated by a distinctive symbol (see Plates II. and XII.). Ancient battlefields are named and are dated if the date is known.

Antiquities include the following:—ancient earthworks, whether British, Roman, Saxon or Danish; British and Roman roads, Roman stations or villas; standing stones and stone circles; old castles, halls, manor houses, abbeys and priories, crosses, town walls, moats, tumuli and all other objects of archæological interest.

Three styles of lettering, illustrated in Plate II., distinguish between antiquities that are:—

- (a) Pre-Roman,
- (b) Roman, *i.e.* from A.D. 43 to A.D. 420,
- (c) Post Roman.

(23) GAZETTEER.

The Ordnance Survey Gazetteer lists alphabetically in two sections, one for England and Wales and one for Scotland, all the towns and important villages in Great Britain. Against each name is the map reference of the place concerned to the ten kilometre digit which in itself indicates the two-and-a-half-inch map sheet in which the place will be found. Reference to one of the two index diagrams will show, besides the two-and-a-half-inch map sheet already indicated, which of the One-inch and Quarter-inch map sheets cover the

same area. The book is of immediate value not only to private individuals but to public and business administrations also.

(24) LEVELLING INFORMATION AND BENCH MARK LISTS.

Bench Mark Information can normally be obtained most cheaply and easily from the latest published 6" map or 25" plan of the area. In certain areas later levelling information than this may be available. For the majority of such areas Bench Mark Lists are obtainable, together with an explanatory note, for a nominal sum, from the Director General, Ordnance Survey, Chessington, Surrey. These lists give the map reference of each bench mark, a description of its position, and its level referred to the Newlyn Datum to the decimal places of a foot (say $\frac{1}{8}$ inch).

In order to be sure of how to obtain the latest levelling information for a given area an enquirer should apply to the Director General.

(25) REVISION POINT LISTS.

Mention has been made of Revision Points in Section 14. The Department is compiling lists of Revision Points and collecting them into books. Each book gives the co-ordinates, accurate to the nearest ten centimetres, of every revision point contained on one of the new 1/2,500 Plans. The position of each revision point is indicated by a sketch or a photograph. Further information on the availability and prices of these books will be obtainable on application to one of the regional Ordnance Survey Offices or to the Director General, Ordnance Survey, Chessington, Surrey.

(26) COPYRIGHT.

To copy, other than for private study or research, either by hand or mechanically, any part of an Ordnance Survey map or plan without permission, is to infringe crown copyright. Anyone in doubt as to the law, or wishing to obtain such permission, should apply to the Director General, Ordnance Survey, Chessington, Surrey, giving the following particulars :—the scale and sheet number of the map to be copied ; the area in square inches of the part of the map to be copied ; what map details, if any, will not be embodied in the copy ; an indication of the new information or revision, if any, to be embodied ; and the number of copies it is proposed to make. These details will enable the amount of any royalty to be estimated.

Businesses and official and professional bodies, who need frequently to make copies of maps and plans, are advised to enquire for a licence to do so. There are several kinds of licences.

(27) HOW TO OBTAIN MEDIUM SCALE MAPS.

The Coloured Two-and-a-half-inch map in the folded form is obtainable on order through any bookseller. The other Ordnance Survey Medium Scale maps dealt with in this pamphlet and the series of large scale plans, are obtainable through any of the agents listed on pages 20 and 21. These agents will have Index Diagrams and Catalogues which prospective customers may inspect.

LISTS OF ORDNANCE SURVEY AGENTS

The following Agencies for the sale of the 2½-inch Coloured Edition in the flat, unfolded form, and the Outline and Administrative Areas Editions and larger-scale maps have been established where Index Diagrams and Catalogues may be inspected and where the Maps and Plans of the district in which the Agency is situated may be obtained :—

LONDON : EDWARD STANFORD, LTD.,
12-14, Long Acre, W.C.2.

Complete sets of the 6-inch, 25-inch, and larger-scale Plans of England and Wales, and of the 6-inch Plans of Scotland, are stocked by Messrs. E. Stanford, Ltd.

LONDON : SIFTON, PRAED AND CO., LTD.,
67, St. James's Street, S.W.

A complete set of the 6-inch Plans of Great Britain is stocked at this Agency as well as 25-inch Plans of the Home Counties.

EDINBURGH : THOMAS NELSON & SONS, LTD.,
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Complete sets of the 6-inch, 25-inch and larger-scale Plans of Scotland are stocked by Messrs. Thomas Nelson & Sons, Ltd.

ENGLAND & WALES

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*There are complete sets of the 25-Inch 6-Inch and Maps of the County at these Agencies.

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*There are complete sets of the 6-Inch and 25-Inch Maps of the County at these Agencies.

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† Sets of 6-Inch and larger scale maps of Lanark and parts of the adjacent counties are held by J. Smith & Son, Ltd., of Glasgow.





